

# BWT bestmax

## Filtration system for water optimisation



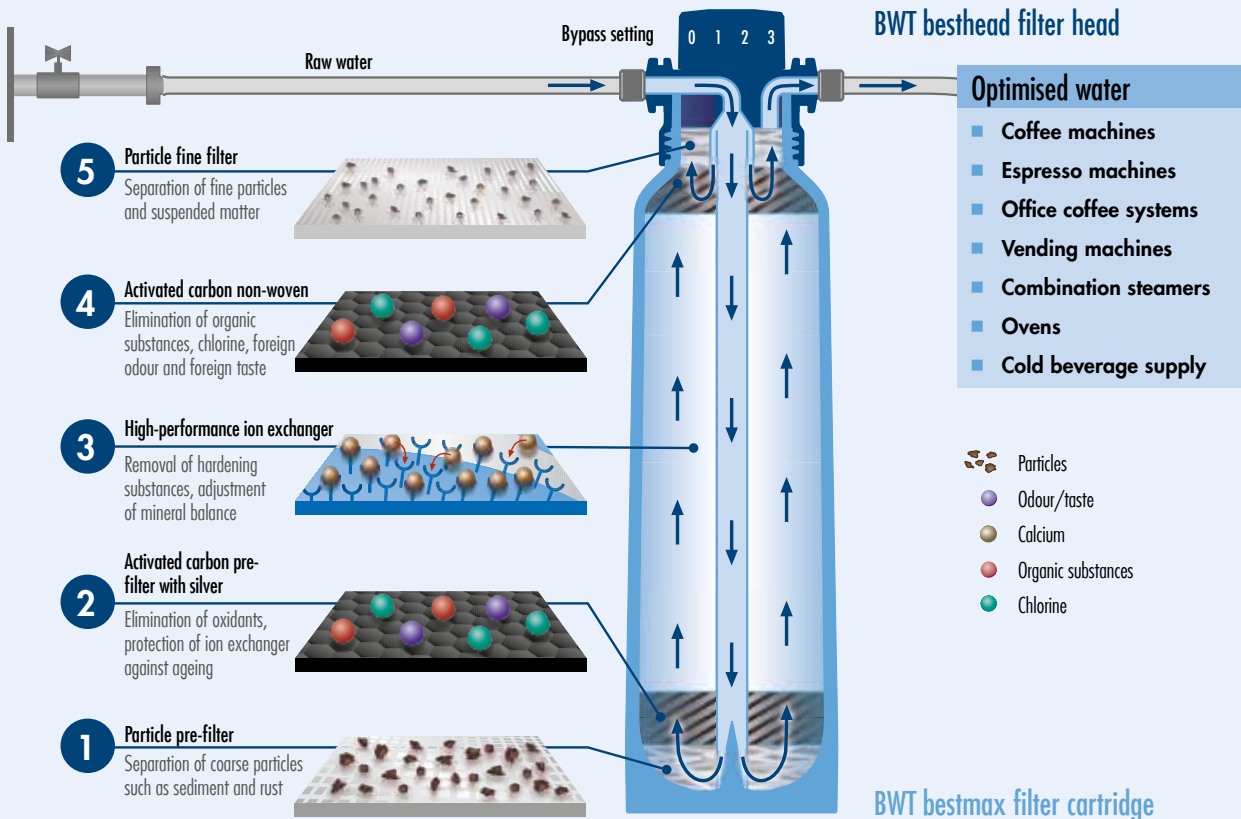
### For the perfect water for catering and vending machines

Raw water needs to be optimised for the specific requirements for the catering industry (HORECA). BWT bestmax provides you with a universal filter system that accomplishes this task simply and efficiently.

The filter system consists of a filter cartridge with five filtration steps and the BWT besthead filter head (see graphic) that is screwed on. A blended partial flow (0–3) is adjusted at the filter head depending on the water hardness and requirements. Check valves in the filter head prevent any water from back flow into the drinking water mains or filter cartridge and protect against uncontrolled water discharge. BWT bestmax food-safe filter systems are pressure-resistant and safe. They can be used worldwide in any drinking water system.



NSF – Tested and Certified by NSF International against NSF/ANSI Standard 42 for the reduction of chlorine, taste and odor.



## Dimensions and Weights

BWT bestmax		S	V	M	L	XL	2XL
Total height without wall mounting bracket (A)	mm	350 – 360	410 – 420	465 – 475	490 – 500	490 – 500	570 – 580
	(Inch)	(13.78-14.18)	(16.15 – 16.54)	(18.31 – 18.71)	(19.30 – 19.69)	(19.30 – 19.69)	(22.44 – 22.83)
	(Inch)	(13 3/4 – 14 3/16)	(16 1/8 – 16 9/16)	(18 5/16 – 18 11/16)	(19 5/16 – 19 11/16)	(19 5/16 – 19 11/16)	(22 7/16 – 22 13/16)
Total height with wall mounting bracket (B)	mm	385	445	500	530	530	600
	(Inch)	(15.16)	(17.52)	(19.69)	(20.87)	(20.87)	(23.62)
	(Inch)	(15 3/16)	(17 1/2)	(19 11/16)	(20 7/8)	(20 7/8)	(23 5/8)
Height to centre of connection (C)	mm	310	366	425	450	450	520
	(Inch)	(12.21)	(14.41)	(16.73)	(17.72)	(17.72)	(20.47)
	(Inch)	(12 3/16)	(14 7/16)	(16 3/4)	(17 11/16)	(17 11/16)	(20 7/16)
Distance required for service (D)	mm	65	65	65	65	65	65
	(Inch)	(2.56)	(2.56)	(2.56)	(2.56)	(2.56)	(2.56)
	(Inch)	(2 9/16)	(2 9/16)	(2 9/16)	(2 9/16)	(2 9/16)	(2 9/16)
Installation length (E)	mm	125	125	125	125	125	125
	(Inch)	(4.93)	(4.93)	(4.93)	(4.93)	(4.93)	(4.93)
	(Inch)	(4 15/16)	(4 15/16)	(4 15/16)	(4 15/16)	(4 15/16)	(4 15/16)
Filter cartridge Ø (F)	mm	88	110	130	145	145	185
	(Inch)	(3.47)	(4.34)	(5.12)	(5.71)	(5.71)	(7.28)
	(Inch)	(3 7/16)	(3 7/16)	(5 1/8)	(5 11/16)	(5 11/16)	(7 1/4)
Filter cartridge weight, cartridge dry appr.	kg	0.9	2.1	2.4	3.4	3.8	7.5
	(lb)	(1.99)	(4.63)	(5.30)	(7.50)	(8.38)	(16.53)
	(lb)	(2)	(4 5/8)	(5 5/16)	(7 1/2)	(8 3/8)	(8 1/2)
Filter cartridge weight, wet appr.	kg	1.5	3.2	4.2	5.9	6.0	11.0
	(lb)	(3.31)	(7.06)	(9.26)	(13.01)	(13.23)	(24.25)
	(lb)	(3 5/16)	(7 1/16)	(9 1/4)	(13)	(13 1/4)	(13 1/4)

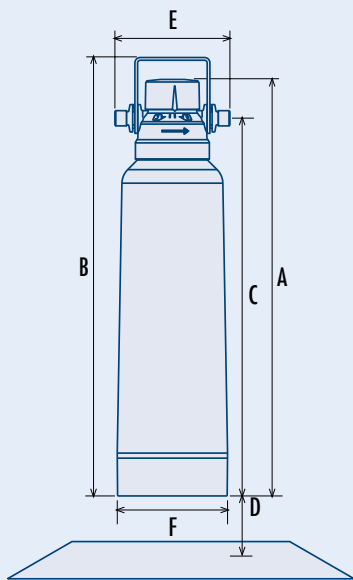
## Order Numbers

Order numbers	S	V	M	L	XL	2XL
Filter cartridge	FS22100A00	FS23100A00	FS24100A00	FS26100A00	FS28100A00	FS30100A00
Filter head ST 3/8"	FS00Y90A00					
Filter head PA 3/8"	FS00Y96A00					
Filter head PA 8 mm	FS00Y95A00					

## Technical Data

Operation Conditions		S	V	M	L	XL	2XL
Connection thread (intake/outlet)		3/8" (BSP male)					
Nominal flow	L/d (US gal/d)	720 (2.725)					
	US gal./min (L/min)	0.5 (1.9)					
Working pressure range	bar (psi)	2 – 8 (29 – 116)					
Intake water pressure	bar (psi)	>1,2 (>17.4)					
Pressure loss at 30 L/h (8 US gallons/h) <sup>(1)</sup>	bar (psi)	0.10 (1.5)	0.10 (1.5)	0.7 (0.05)	0.7 (0.05)	0.10 (1.5)	0.20 (1.9)
Pressure loss at 60 L/h (16 US gallons/h) <sup>(1)</sup>	bar (psi)	0.15 (2.2)	0.15 (2.2)	0.20 (2.9)	0.20 (2.9)	0.15 (2.2)	0.30 (4.4)
Pressure loss at 180 L/h (42 US gallons/h) <sup>(1)</sup>	bar (psi)	0.60 (8.7)	0.60 (8.7)	0.50 (7.3)	0.50 (7.3)	0.50 (7.3)	0.60 (8.7)
Water temperature, min.-max.	°C (°F)	+4 to +30 (+39.2 to +86)					
Ambient temperature, min.-max.	°C (°F)	+4 to +40 (+39.2 to +104)					
Ambient temperature during storage/transportation, min.–max.	°C (°F)	-20 to +40 (-4 to +104)					
Bed volume	L (US gal)	0.70 (0.2)	1.5 (0.4)	2.00 (0.5)	2.50 (0.7)	3.10 (0.8)	6.50 (1.7)
Operation position		vertical/horizontal					
Volume of flushing water	L (US gal)	2 (0.3)	3 (0.8)	5 (1.3)	7 (1.9)	9 (2.4)	15 (4)

<sup>(1)</sup> with a 1.5 m (59.06 inch) hose DN 8 fitted to both the intake and outlet. <sup>(2)</sup> Capacities may deviate by up to ±5% depending on the local water quality and volume flow. <sup>(3)</sup> Default blend setting = 1. For devices sensitive to limescale, blend setting = 0. This reduces the capacities stated by approx. 10%. <sup>(4)</sup> °dKH = German temporary hardness. Subject to change.



## Limited Warranty, Liability and Certifications

BWT warrants to the original purchaser/consumer all equipment that it manufactures to be free from defects in material and workmanship for a period of 2 years from the date of purchase. This warranty is subject to exclusions and limitations. For complete warranty policy and statements, please see [www.water-and-more.com](http://www.water-and-more.com). BWT does not assume any liability for damages or subsequent/secondary damages arising from:

- Failure to comply with the instructions in this installation and operating manual
- Improper use
- Improper or faulty installation;
- Improper commissioning, operation, maintenance;
- Use of non-certified, non-approved components
- Not performing the required service and exchange work;
- Unauthorized technical and mechanical changes or conversions



**NOTE!** We recommend to choose a size of cartridge, where the capacity requires replacement every six months, but no longer than 12 months.

The actual capacity may vary from the given values provided. Capacity is dependent on the overall water quality, flow rate, inlet water pressure and the continuity of the flow rate.

Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

## Settings and capacities

The following tables show typical capacities and the recommended blending setting depending on the carbonate hardness (not the Total Hardness) of the water. All capacity and blending setting recommendations are given under consideration of the valid regulations and requirements, as well as, our experience in the field of water filtration and technology.

	ppm CaCO <sub>3</sub>	Temporary hardness in °dKH <sup>(4)</sup>	Blend	Filter capacity <sup>(2,3)</sup> in litres (US gallons)					
				S	V	M	L	XL	2XL
Hot beverage preparation with steam generation	125	≤7	3	≥1425 (≥376)	≥3570 (≥943)	≥5425 (≥1,433)	≥7425 (≥1,962)	≥9710 (≥2,656)	≥17140 (≥4,529)
	142	8	3	1250 (330)	3125 (826)	4750 (1,255)	6500 (1,717)	8500 (2,246)	15000 (3,963)
	178	10	3	1000 (264)	2500 (661)	3800 (1,004)	5200 (1,374)	6800 (1,797)	12000 (3,170)
	214	12	2	745 (197)	1865 (493)	2835 (2,835)	3885 (1,026)	5080 (1,342)	8965 (2,369)
	249	14	2	640 (169)	1600 (423)	2430 (2,430)	3330 (880)	4355 (1,151)	7685 (2,030)
	303	17	1	445 (118)	1115 (295)	1695 (1,695)	2320 (613)	3030 (801)	5355 (1,415)
	356	20	1	375 (99)	945 (250)	1440 (1,440)	1970 (520)	2575 (680)	4550 (1,203)
	409	23	1	330 (87)	825 (218)	1250 (1,250)	1715 (453)	2240 (592)	3955 (1,046)
	445	≥25	1	≤300 (≤79)	≤755 (≤199)	≤1150 (≤1,150)	≤1575 (≤416)	≤2060 (≤544)	≤3640 (≤962)

	ppm CaCO <sub>3</sub>	Temporary hardness in °dKH <sup>(4)</sup>	Blend	Filter capacity <sup>(2,3)</sup> in litres (US gallons)					
				S	V	M	L	XL	2XL
Vending, without steam generation	125	≤7	3	≥1710 (≥462)	≥4285 (≥1,131)	≥6510 (≥1,720)	≥8910 (≥2,354)	≥11655 (≥3,079)	≥20570 (≥5,435)
	142	8	3	1500 (396)	3750 (990)	5700 (1,506)	7800 (2,061)	10200 (2,695)	18000 (4,756)
	178	10	3	1200 (317)	3000 (793)	4560 (1,205)	6240 (1,649)	8160 (2,156)	14400 (3,804)
	214	12	3	1000 (264)	2500 (661)	3800 (1,004)	5200 (1,374)	6800 (1,797)	12000 (3,170)
	249	14	3	855 (226)	2140 (565)	3255 (860)	4455 (1,177)	5825 (1,539)	10285 (2,717)
	303	17	3	705 (186)	1765 (466)	2680 (708)	3670 (970)	4800 (1,268)	8470 (2,238)
	356	20	3	600 (159)	1500 (396)	2280 (802)	3120 (824)	4080 (1,078)	7200 (1,902)
	409	23	3	520 (137)	1300 (343)	1980 (523)	2710 (716)	3545 (937)	6260 (1,654)
	445	≥25	2	≤430 (≤114)	≤1075 (≤284)	≤1635 (≤432)	≤2235 (≤590)	≤2925 (≤773)	≤5160 (≤1,364)

	ppm CaCO <sub>3</sub>	Temporary hardness in °dKH <sup>(3)</sup>	Blend	Filter capacity <sup>(2, 3)</sup> in litres (US gallons)					
				S	V	M	L	XL	2XL
Combination steamer/oven and ice cube maker	125	≤7	1	≥1080 (285)	≥2710 (716)	≥4115 (1,087)	≥5635 (1,489)	≥7370 (1,947)	≥13000 (3,436)
	142	8	1	945 (250)	2370 (626)	3600 (951)	4930 (1,303)	6445 (1,703)	11375 (3,006)
	178	10	1	755 (199)	1895 (501)	2880 (761)	3945 (1,042)	5155 (1,362)	9100 (2,405)
	214	12	1	630 (166)	1580 (417)	2400 (634)	3285 (868)	4295 (1,135)	7585 (2,004)
	249	14	1	540 (143)	1355 (358)	2055 (543)	2815 (744)	3685 (974)	6500 (1,718)
	303	17	1	445 (118)	1115 (295)	1695 (448)	2320 (613)	3035 (802)	5355 (1,415)
	356	20	1	380 (100)	945 (250)	1440 (380)	1970 (520)	2580 (682)	4550 (1,203)
	409	23	1	330 (87)	825 (217)	1250 (330)	1715 (453)	2240 (591)	3958 (1045)
	445	≥25	1	≤300 (≤79)	≤755 (≤199)	≤1150 (≤303)	≤1575 (≤416)	≤2060 (≤544)	≤3641 (≤961)

	ppm CaCO <sub>3</sub>	Temporary hardness in °dKH <sup>(4)</sup>	Blend	Filter capacity <sup>(2, 3)</sup> in litres (US gallons)					
				S	V	M	L	XL	2XL
Combination steamer/oven and ice cube maker	125	≤7	0	≥985 (≥260)	≥2460 (≥650)	≥3740 (≥988)	≥5120 (≥1,353)	≥6700 (≥1,770)	≥11820 (≥3,124)
	142	8	0	860 (227)	2155 (569)	3275 (865)	4480 (1,184)	5860 (1,548)	10345 (2,733)
	178	10	0	690 (182)	1720 (454)	2620 (692)	3585 (947)	4690 (1,239)	8270 (2,186)
	214	12	0	575 (152)	1435 (379)	2180 (576)	2985 (789)	3905 (1,032)	6895 (1,822)
	249	14	0	490 (129)	1230 (325)	1870 (494)	2560 (676)	3350 (885)	5910 (1,562)
	303	17	0	405 (107)	1010 (267)	1540 (407)	2105 (556)	2755 (728)	4865 (1,286)
	356	20	0	345 (91)	860 (227)	1310 (346)	1790 (473)	2345 (620)	4135 (1,093)
	409	23	0	300 (79)	750 (198)	1140 (301)	1555 (410)	2035 (537)	3595 (949)
	445	≥25	0	≤275 (≤72)	≤690 (≤182)	≤1045 (≤276)	≤1430 (≤377)	≤1875 (≤495)	≤3310 (≤874)

<sup>(2)</sup> Capacities may deviate by up to ±5% depending on the local water quality and volume flow. <sup>(3)</sup> Default blend setting = 1. For devices sensitive to limescale, blend setting = 0. This reduces the capacities stated by approx. 10%. <sup>(4)</sup> °dKH = German temporary hardness. Subject to change.

## Chlorine Reduction

The bestmax water filter systems have been tested and certified by NSF International according to NSF/ANSI 42 for reduction of chlorine. The concentration of chlorine in water entering the system was reduced to a concentration less than or equal to the permissible limit for water leaving the system, as specified in NSF/ANSI 42. While testing was performed under standard laboratory conditions, actual performance of the system may vary.

BWT bestmax	S	V	M	L	XL	2XL
Reduction (influent challenge concentration 2.0 mg/l)	> 50 %					

## Capacity based on Chlorine Reduction

BWT bestmax	S	V	M	L	XL	2XL	
Capacity based on Chlorine Reduction	liters (gallons)	2410 (637)	3170 (837)	11390 (3,010)	15600 (4,122)	20400 (5,390)	36000 (9,511)



Protection against	BWT besttaste	BWT bestmax	BWT bestprotect	BWT bestmax PREMIUM
Protection against particles	✓	✓	✓	✓
Chlorine	✓	✓	✓	✓
Lime scale protection	—	✓	✓	✓
Protection against gypsum	—	—	✓	✓
Magnesium	—	—	—	✓

[www.bwt-steward-USA.com](http://www.bwt-steward-USA.com) [www.bwt-wam.com](http://www.bwt-wam.com)

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